Section 16 Contents

16 SECTION

Federal Water Planning and Development

UTAH STATE WATER PLAN - WEBER RIVER BASIN PLAN

Federal agencies have been major players in the overall development, planning and management of the basin's water resources.

16.1 Introduction

This section of the *Weber River Basin Plan* briefly describes the current roles or level of responsibility of the 12 federal agencies involved directly or indirectly with the planning and development of water resources within the basin. Their roles vary from the regulation, planning, design and construction of water reclamation projects to the protection of water quality, the environment, and habitat for various fish and wildlife species.

16.2 Background

The general and overall role of the federal government in the area of water resources has changed significantly over the years. From the late 1930s to as recently as the early 1970s, federal agencies were involved in the planning, design and construction of major water and land reclamation projects. Most of these projects are responsible for providing affordable and reliable water sources for agricultural and M&I users.

The current involvement in the development of water by some federal agencies has been significantly reduced. As a result, water provider organizations, municipalities and some private industries are relying more on state agencies to replace federal water project development expertise and related funding programs.

16.3 Federal Programs and Future Water Planning and Development

The following are brief descriptions of federal agencies and their programs.

16.3.1 Bureau of Land Management

The Federal Land Policy and Management Act gives the Bureau of Land Management (BLM) authority for inventory and comprehensive planning for all public lands and resources under its jurisdiction. The quantity and quality of water resources are key factors in managing terrestrial and aquatic resources on public lands in the Salt Lake District. The BLM manages riparian habitats of springs, seeps, streams, lakes, reservoirs and ponds to help provide high quality water resources for beneficial downstream uses.

Only small and insignificant parcels of land in the Weber River Basin are managed by the BLM. As a result, the BLM has only a minor impact and influence on the planning and development of water.

16.3.2 Bureau of Reclamation

Within the Weber River Basin, the Bureau of Reclamation has served as the design and construction management agency for the construction of seven major dams and reservoirs including Causey, Pineview, Wanship, Echo, East Canyon, Lost Creek and Willard (see Section 5).

In the future, the bureau's responsibilities will likely change more to the study of water quality, recreation and dam safety issues at its major facilities within the basin.

The bureau has completed a study to determine the general quality of outdoor recreation at Lost Creek Reservoir. Issues in the bureau's study include 1) fish habitat and the management of the overall fishery resources; 2) the condition, accessibility and adequacy of camping facilities; 3) recreational boating and its impact on existing and projected fishing activities;

4) general recreational activity in and around private lands surrounding the reservoir; and 5) the possibility of placing substantial restrictions on visitor numbers to both improve the overall recreation experience and to mitigate historic damage to private property and livestock.

The bureau is also cooperating with the Weber Basin Water Quality Council and the Utah Water Research Laboratory at Utah State University in conducting a total organic loading study on the upper Weber River system. The study is aimed at determining the extent of current organic loading rates to downstream culinary water treatment plants and the impact on loading rates caused by seasonal stream flow variations. A major product of the study will be the development of a system operations model to optimize the future operation of the entire river and reservoir system.

16.3.3 Cooperative Research, Education and Extension Service

This agency is assigned responsibility for all cooperative state and other research programs presently performed by the Cooperative State Research Service, all cooperative education and extension programs presently performed by the Extension Service, and such other functions related to cooperative research, education and extension as may be assigned.

16.3.4 Corps of Engineers

Local interests can petition Congress for assistance from the Corps of Engineers (COE) if they cannot cope with water resources problems. The COE can investigate economic and technical feasibility and social and environmental acceptability of remedial measures. When the problems cover an entire river basin, it is studied as a unit. Close coordination is maintained with local interests, the state and other federal agencies.

The COE has constructed several projects within the basin. The most recent was built in 1985 at the South Davis Wastewater Treatment Plant to raise the levees which protect the facility from the Great Salt Lake. Because the water continued to rise, the levees were further raised and strengthened in 1986.

The COE implemented a small flood control project of 4.5 miles of channel enlargement along Kays Creek. The project extends from Fort Lane Street in Layton downstream to the Great Salt Lake and provides flood protection to the City of Layton and surrounding areas. The flood control facilities are currently maintained by Davis County.

The COE, in cooperation with the Bureau of Reclamation and Weber Basin Water Conservancy District, established criteria and policies to operate five of the Weber Basin Project reservoirs during flooding and excessive watershed runoff periods. Flood management criteria and procedures have been established for Rockport Lake and Lost Creek, East Canyon, Pineview and Echo reservoirs.

The Energy and Water Development Act of 1984 directed the COE to conduct special flood control studies in Utah to determine specific ways and means to alleviate future flooding. Included in this study were all the streams and rivers originating in the small canyons along the western slope of the Wasatch Mountain Range from North Ogden to Bountiful.

The Water Resources Act of 1986 authorized the COE to undertake a reconnaissance study of the Weber River and its tributaries. The study was initiated in March of 1990 basically to address the potential of federal participation in the development of water resources and in the mitigation of property damage caused by extreme flood events.

The reconnaissance study evaluated the main reaches of the Weber and Ogden rivers and a number of smaller tributary streams. The study addressed historic and projected flooding problems. The study screened 18 damage centers (developed areas) adjacent to the Weber River and its tributaries for flood concerns. Of those, three locations were ultimately studied in detail - Riverdale, South Weber/Uintah and Coalville. The overall findings generally indicated the construction of additional flood protection facilities was not federally justified at this time with the exception of Chalk Creek near Coalville. Flooding events in Chalk Creek are significant enough to warrant further study and the possible construction of flood control facilities. But the town decided not to pursue further investigations.

16.3.5 Environmental Protection Agency

The mission of the Environmental Protection Agency (EPA) is to allow a coordinated effort between federal, state and local governmental agencies to effectively abate and control pollution within the environment. Of particular interest are the federal regulations and programs associated with the Federal Water Pollution Control Act of 1972, the Safe Drinking Water Act of 1974 and the Clean Water Act of 1987. The regulations to implement these acts have set limitations on contaminants.

Point source pollution is normally associated with effluent discharges from industrial and domestic sources. Non-point source pollution is caused by excessive runoff from a variety of surface conditions including agricultural crop land, open rangeland, urban land and all other surfaces that generate flows to existing stream and river courses.

Point source pollution programs include the National Pollutant Discharge Elimination System (NPDES) program, Pretreatment and Municipal Pollution Prevention Program, National Sludge Management Program and Enforcement Program. The NPDES program requires that all wastewater treatment facilities meet or exceed limitations placed on certain water contaminants.

The Pretreatment and Municipal Pollution Prevention Program applies to industrial businesses that discharge effluent to domestic sanitary sewers with extreme concentrations of certain toxic pollutants. To effectively reduce the problems, the program offers technical and financial assistance.

The National Sludge Management Program pertains to the management and disposal of wastewater sludges or biosolids. Sludges often contain toxic pollutants and require specialized treatment and handing procedures for ultimate disposal.

Initially, the Construction Grants Program provided construction funds for most levels of municipal wastewater treatment facilities. The program was phased out and replaced with a revolving state loan program administered by the Division of Water Quality, Department of Environmental Quality.

The EPA programs designed to offer technical and financial assistance include Clean Water Act (CWA) 104 Grants to promote and support research, investigations and training programs; CWA 106 Grants to assist states in the overall administration of individual state water quality management programs; state revolving funds supported by capitalization grants to construct and renovate publicly owned treatment works-facilities; Pilot Grants and Technical Assistance; Municipal Technology Programs; a number of Small Community Assistance Programs; and Section 319 funds for implementing basin management plans associated with non-point source pollution problems.

Federal regulations associated with Section 319 of the CWA provide standards aimed at improving the overall quality of water within a given watershed in accordance with established water use designations. These improvement generally include the construction of flow control structures or measures to reduce sediment loads within existing streams and rivers, and the reduction of surface discharges contaminated with animal waste and nutrient residues from farm and ranch lands.

In 1974, congress passed the Safe Drinking Water Act (SDWA). The act set up a regulatory program to help ensure the provisions of the SDWA are implemented and enforced.

Through the Division of Drinking Water and EPA, state safe drinking water standards and regulations are enforced on community systems. This also includes the three major surface water treatment facilities managed by Ogden City and the Weber Basin Water Conservancy District.

16.3.6 Farm Service Agency

The Farm Service Agency (FSA-formerly the Agricultural Stabilization and Conservation Service) administers farm commodity, crop insurance, and conservation programs for farmers and ranchers. As of October 1995, FSA also administers the farm ownership and operating loans formerly provided by the Farmers Home Administration.

The FSA's conservation programs include the Agricultural Conservation Program (ACP), the Emergency Conservation Programs (ECP) and the Conservation Reserve Program (CRP). The ACP is a comprehensive program designed to reduce soil erosion, mitigate water pollution, protect and improve the condition of cropland and pastures, conserve water, preserve and enhance wildlife habitat, and where possible, encourage the conservation of energy. Projects are evaluated at the local level on a case-by-case basis to determine consistency with the overall ACP objectives. The ACP is administered by state and county committees that are made up of local farmers and ranchers.

The ECP provides emergency cost-share funding for a number of farm related disasters that include, but are not limited to excessive wind erosion, floods and extended periods of extreme drought conditions. The CRP was established to encourage farmers through contracts and annual payments to reduce soil erosion and to put fragile lands into permanent cover. In addition, CRP eligibility has been expanded to promote the preservation and maintenance of wetlands, wildlife habitat and water quality.

The Natural Resources Conservation Service, Forest Service, and the Division of Forestry, Fire and State Lands provide technical program guidance. The USU-

Cooperative Extension Service provides educational support.

16.3.7 Federal Emergency Management Agency

The National Flood Insurance Program (NFIP) is administered by the Federal Insurance Administration (FIA), a component of the Federal Emergency Management Agency (FEMA), an independent agency. Congress established the NFIP with the passage of the National Flood Insurance Act of 1968. The NFIP was broadened and modified with the passage of the Flood Disaster Protection Act of 1973 and the NFIP Reform Legislation of 1994.

The NFIP is a federal program enabling property owners to purchase insurance protection against losses from flooding. The insurance is designed to provide an insurance alternative to disaster assistance to meet the escalating costs of repairing damage to buildings and their contents caused by floods.

Participation in the NFIP is based on an agreement between the local communities and the federal government. The agreement states that if a community will implement and enforced measures to reduce future flood risks to new construction in special flood hazard areas, the federal government will make flood insurance available within the community as a financial protection against flood losses which do occur.

The FEMA is the federal coordinating agency for emergency response, disaster relief funding and, mitigation and preparedness planning. The agency provides technical assistance through loans and grants following declared disasters.

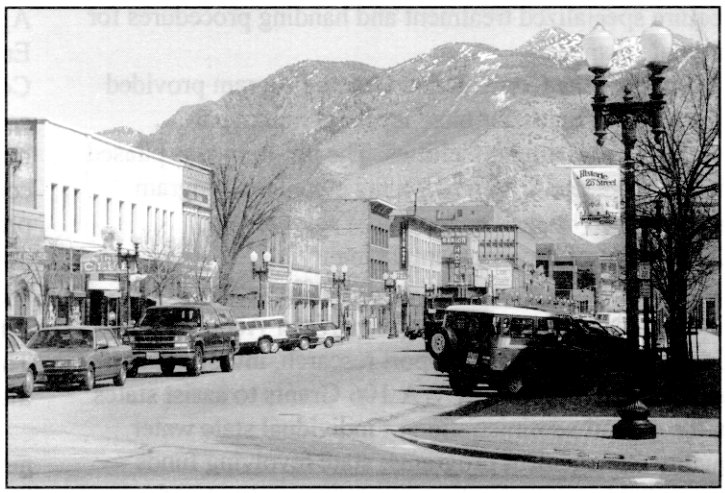
Presidential Declared Disaster - After a presidential declaration of a major disaster, usually after a state request, grants are available to state and local governments for mitigation of disaster-related damage.

Assistance Grants -The FEMA can provide grants on a matching basis to help the state develop and improve disaster preparedness plans and develop effective state and local emergency management organizations. Also, grants are available to develop earthquake preparedness capabilities.

Flood Plain Management - The FEMA provides technical assistance to reduce potential flood losses through flood plain management. This includes flood hazard studies to delineate flood plains, advisory services to prepare and administer flood plain management ordinances and assistance in enrolling the National Flood Insurance Program. The FEMA can assist with the acquisition of structures in the flood plain subject to continual flooding. Currently, 21 cities and towns within the basin participate in the NFIP program including flood control districts representing Weber, Davis and Morgan counties.

16.3.8 Fish and Wildlife Service

The Fish and Wildlife Service is the federal agency with responsibility for ensuring the long-term conservation and protection of certain federal trust resources including threatened and endangered species, migratory birds, wetlands, and fish and wildlife resources that may be impacted by federally permitted or funded projects. Additionally, the FWS manages fish and wildlife habitat in the National Wildlife Refuge system. The FWS's authorities come from the Endangered Species Act, the Clean Water Act, the Migratory Bird Treaty Act, the Bald Eagle Protection Act, the Fish and Wildlife Coordination Act, the National Environmental Policy Act and the National Wildlife Refuge System Administration Act.



25th Street in Ogden

16.3.9 Forest Service

Water-related programs of the Forest Service include watershed management; special use authorization for water development projects and coordination with local,

state and federal agencies. They also manage wilderness areas located on national forest lands.

Watershed Management - Watershed protection insures that activities do not cause undue soil erosion and stream sedimentation, reduce soil productivity or otherwise degrade water quality. Water yields may be affected primarily through snowpack management as a result of timber harvest using well-planned layout and design. Potential increases may approach one-half acre-foot per acre for some treated areas, but multiple-use considerations and specific on-site conditions may limit actual increases.

Special Use Authorization - Construction and operation of reservoirs, conveyance ditches, hydropower facilities, and other water resources developments require special use authorization and usually an annual fee. Authorization contains conditions necessary to protect all other resources use. Coordination of water developments by others requires communication early in the planning process to guarantee environmental concerns are addressed.

16.3.10 Geological Survey

The Geological Survey (USGS) was established by an act of Congress in 1879 to provide a permanent federal agency to conduct the systematic and scientific classification of the public lands and examination of the geological structure, mineral resources and products of the national domain. A number of publications have been completed by the USGS in recent years regarding water quality and groundwater storage. A list of USGS publications addressing water resources information can be acquired from the agency's Salt Lake City office.

Ongoing USGS activities include the gathering of additional water resources related data and the maintenance of existing data bases for various water agencies to plan, design, operate and manage existing and potential water projects within the basin. The USGS is currently monitoring 14 active stream and river gaging stations and three reservoir stage recorders. An itemized summary of all water resources data can be attained from the annual USGS report entitled *Water Resources Data for Utah*. The costs to install and operate a majority of the active stream gaging stations are shared on a 50-50 basis between state and federal agencies utilizing data from these stations.

16.3.11 Natural Resources Conservation Service

The National Resources Conservation Service (NRCS) provides technical and financial assistance to conserve soil, water and related resources on non-federal land through local soil conservation districts. In addition to working with individual landowners and units of government, NRCS administers the following programs.

Published soil surveys contain descriptions of an area's soils, their use and management, and maps depicting the extent of these soils. The Davis-Weber and Morgan Area soil surveys give information for all non-federal lands in the three counties. Soils in Summit County have been surveyed, but the report has not been published.

Through the snow survey program, NRCS measures snow water equivalent and precipitation at 14 locations ranging in elevation from 6,000 to 9,600 feet. These data are available to the public electronically. Basin outlook reports, published monthly, compare current snowpack, precipitation and reservoir storage to average amounts and forecast stream flows for nine locations.

River basin studies, technical and financial assistance for watershed protection and flood prevention, and the emergency watershed programs were all authorized by the Small Watershed Protection and Flood Prevention Program (PL 83-566). Implementation of the *North Fork Ogden River Watershed Work Plan* was completed in 1965. Maintenance of the watershed has been turned over to the local sponsors (Weber County and local irrigation companies).

A river basin study, the *Northern Wasatch Front Hazard Mitigation Study*, is being conducted in Weber and Davis counties. The study is quantifying the amount of sediment that can be expected from each of the small canyons resulting from storms with existing vegetation and with vegetation destroyed by fire.

The emergency watershed program provides immediate technical and financial assistance to relieve hazards to life and property resulting from conditions created by natural disasters.

Resource Conservation and Development (RC&D) areas are locally organized, sponsored and directed projects to help care for land use and natural resources to improve their community's economy, environment and living standards. Technical and financial assistance to RC&D areas, authorized by the Food and Agriculture Acts of 1962 and 1981, is provided by the NRCS.

The Wasatch Front RC&D, organized in 1994, covers Weber, Davis and Morgan counties within the Weber

River Basin as well as Salt Lake and Tooele counties outside the basin.

16.3.12 Rural Development

Rural Development (formerly the Farmers Home Administration) is authorized to provide financial assistance for water and waste disposal facilities in rural areas and towns of up to 10,000 people. Priority will be given to public entities in areas smaller than 5,500 people to restore, improve or enlarge a water facility. To be eligible for loan and grant funds, water or waste disposal systems must be consistent with state or subdivisions development plans and regulation. Loans for RC&D projects are also available. ❖